

Work Order ID 46414

June 26, 2009 11:40:35 AM

SPLIT

D REV 54873



Page 1

Item ID: D6102-013
 Revision ID: D
 Item Name: Saddle Billet
 Start Date: 15/07/2009 Start Qty: 200.00
 Required Date: 03/08/2009 Req'd Qty: 200.00
 Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Approvals: Process Plan: Date: Tooling: Date:
 QC: Date: SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D6102	Rev D
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100



Purchasing

Purchasing

PURCHASING

0.00

Memo

0.00

Issue P/O: 8393 (a) Description: Aluminum Billet (b) 7.000" x 6.500" x 2.000" thick (c) Tolerance on all dimensions is +0.06/0.00 (d) Grain direction along 6.500" length (e) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8) Material release certifi

CZ 09/10/23

110



Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

Memo

0.00

Ensure material certification is attached

Pcs/12/22 (30)

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

Check certification to Dwg D6102 for compliance

smk 08/12/30

30

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Page 2

Item ID: D6102-013

Accept



Setup Start



Revision ID: D

Stop



Item Name: Saddle Billet

Start Date: 15/07/2009 Start Qty: 200.00



Cust Item ID:

Required Date: 03/08/2009 Req'd Qty: 200.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Identify as per dwg & Stock Location: *MAT*

0.00



Packaging

Memo

0.00

OK 09/12/30

30

Packaging

140

QC21 - Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10-01-05

Bl 10-1-04
(30)

Picklist Print

June 26, 2009 11:30:35 AM

Page 1

Work Order ID: 46414

Parent Item: D6102-013RevD

Parent Item Name: Saddle Billet

Comments:



Start Date: 15/07/2009

Required Date: 03/08/2009

Start Qty: 200.00

Required Qty: 200.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6102-013PRevD		Purchased	No			110	Each	0.0000	200.0000			
6061-T6 7.0x6.5x2.0												



CL 07/12/22

30

date: Wednesday, 11/03/2009 9:53:23 AM
 ser: Chantal Lavoie

Process Sheet

SPLIT-3

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: SADDLE BILLET (6061)
Job Number	: 46414	Part Number	: D6102013
Estimate Number	: 12482	Drawing Number	: D6102 REV D
P.O. Number	:	Project Number	: N/A
Issue	: 11/03/2009 S.O. No. :	Drawing Revision	: D
Revised Rev.	: NC	Material	:
First Issue	: 11	Due Date	: 18/09/2009
Previous Run	: 45033	Qty:	200 Um: Each
Written By	:		
Checked & Approved By	: <u>C209/03/11</u> <u>W</u>		
Comment	: Est Rev:A New Issue 06-07-03 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0

PG

PURCHASING

Comment: Issue P/O: 8393

- a) Description: Aluminum Billet
 b) 7.000" x 6.500" x 2.000" thick
 c) Tolerance on all dimensions is +0.06/0.00
 d) Grain direction along 6.500" length
 e) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8)
 Material release certificate is required

C209/03/13

(200)

2.0

D6102013P

6061-T6 7.0x6.5x2.0



Comment: Qty.: 1.0000 Each(s)/Unit Total: 200.0000 Each(s)
 6061-T6 7.000"x6.500"x2.000"

N/A
 Incorporated above

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

50

28 2/2/02

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK
 Check certification to Dwg D6102 for compliance

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Identify and Stock
 Location: _____

Date: Wednesday, 11/03/2009 9:53:23 AM
User: Chantal Lavoie

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET (6061)

Job Number: 46414

Part Number: D6102013

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

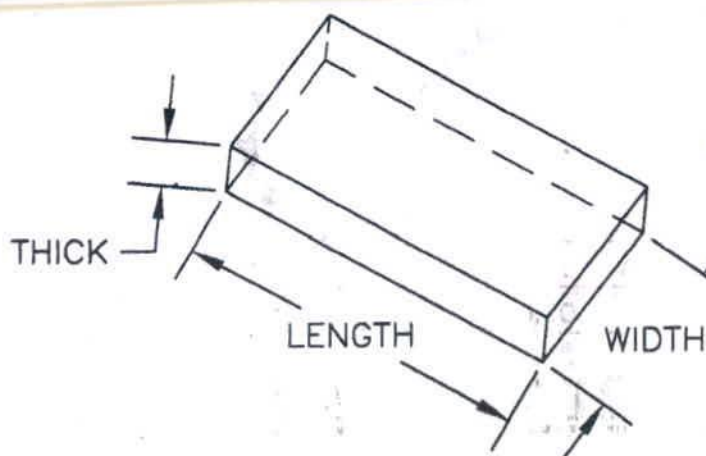
Job Completion



DART

DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

SPECIFICATION CONTROL DRAWING



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 46414

RELEASED

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

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**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP

Page 1 of 1

Ship From: Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA					
Date Shipped 21-DEC-09		F.O.B. ORIGIN		Freight Terms Prepaid		Carrier MANITOULIN		BOL No 162615-2		Delivery No 9921326	

Pack Slip No:9921326

Shipment Details				Final Destination Branch - MON									
Order No 436909	Line No 1	Item No 8641.MO	Description 2.0000.PL.6061.T651.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 7 IN (+ .0620/- .0000 IN (GRAIN TO RUN ALONG 6.5")) X 6.5 IN (+ .0620/- .0000 IN (GRAIN TO RUN ALONG 6.5")) - ALUMINUM PLATE SAW										
Purchase Order No 8393		Part Number		Ordered Qty 30 PCS		Invoice Qty 30 PCS		Backorder Qty					
Details													
Mill		Heat Number 477114A3		Mech Id		PCS 30		Width (IN)		Length (IN)		Shipped Qty (LBS) 271.65	

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

This material has been received and inspected by:

Date:

Amf
06/12/30

SHIP TO:

A M CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4169321

SOLD TO:

AM CASTLE & CO- SOLD TO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

CUSTOMER PO NUMBER: 01-22389		WORK PACKAGE:	CUSTOMER PART NUMBER: 8641 A96061-60		SHIP RUN/LOAD ID: 101607/18	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1085984	LINE ITEM: 1	SHIP DATE: 20-AUG-2009	ALLOY: 6061	CLAD: BARE	TEMPER: T651	PRODUCT DESCRIPTION: KaiserSelect® Precision Plate
WEIGHT SHIPPED: 5610 LB	QUANTITY: 4 PCS EST.	B/L NUMBER: 2023744	GAUGE: 2.0000 IN	DIAMETER/WIDTH: 48.500 IN		LENGTH: 144.500 IN

Certified Specifications

AMS 4027/RevN
ASTM B 209/Rev07

AMS-QQ-A-250/11/RevA

ASME SB 209/Rev2004

Test Code: 1511

Test Results

Lot: 474601A2 Cast 741

Drop 14

Ingot 4

(ASTM E8/B557)
(EN 2002-1)

Tensile: Temper
T651

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
47.7 : 47.8
(329 : 330)

Yield KSI (MPA)
41.7 : 41.8
(288 : 288)

Elongation %
13.9 : 14.0

(ASTM E1251)

Chemistry: SI
Actual 0.71

FE 0.6
CU 0.30
MN 0.05

MG 1.1
CR 0.21

ZN 0.18
TI 0.01

V 0.01

ZR 0.00

TOT 0.05
OTHER

Lot: 477114A3 Cast 733

Drop 67

Ingot 5

(ASTM E8/B557)
(EN 2002-1)

Tensile: Temper
T651

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
48.7 : 48.7
(336 : 336)

Yield KSI (MPA)
43.8 : 43.9
(302 : 303)

Elongation %
12.9 : 13.0

(ASTM E1251)

Chemistry: SI
Actual 0.73

FE 0.6
CU 0.31
MN 0.05

MG 1.0
CR 0.19

ZN 0.17
TI 0.01

V 0.01

ZR 0.00

TOT 0.04
OTHER

**KAISER
ALUMINUM**

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4169321

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
6061 MIN	0.40	0.0	0.15	0.00	0.8	0.04	0.00	0.00	0.00	0.00	EACH	0.05
MAX	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

6061 sheet or plate certified to AMS 4025, AMS 4026, or AMS
4027 also meets applicable requirements of AMS-QQ-A-250/11,
Rev. A.

*OK
08/25/09*

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(a), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 252.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED.

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poy

